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TEXTILE BULLETIN

VOL. 45

NOVEMBER 9, 1933

No. 10

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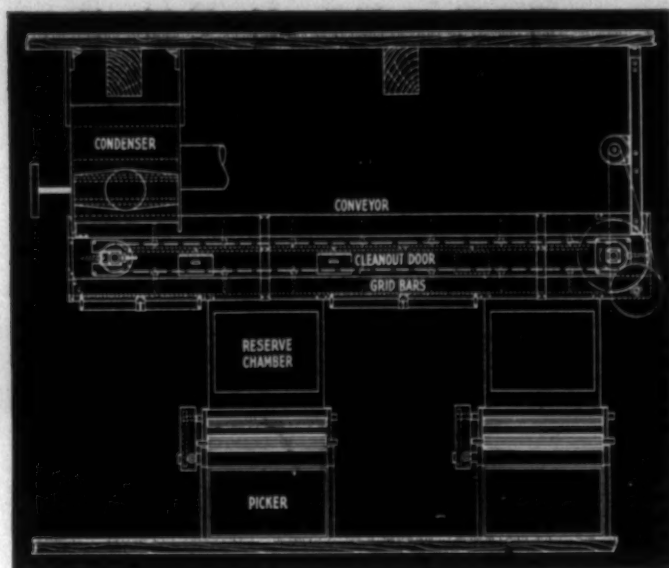
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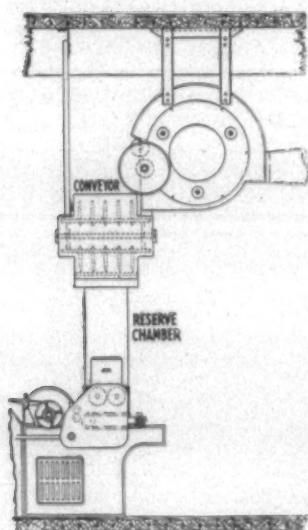
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TEXTILE BULLETIN



VOL. 45—No. 10

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Master Mechanics Study Methods of Preventing Power Losses

At its meeting at Clemson College on November 2nd, the Master Mechanics' Division of the Southern Textile Association discussed preliminary plans for doing research work along lines that will lower mill costs by preventing loss of steam and electric power in various departments of the mills. It is planned to have a series of tests made at various mills, the details of testing work to be handled by students from the textile and engineering departments of the technical colleges, that will result in a practical plan for reducing loss by wasted power and inefficient power plant operation. It was agreed at the meeting a research program along such lines would prove of practical value to the mills. Representatives of the engineering departments of Clemson and N. C. State College took part in the discussion and assured the members that their departments would be glad to assist in the work.

The discussion at the meeting was devoted to a study of methods of more economical use of power in the mills. chimes twice a month.

E. E. Edmiston, of Mooresville, chairman of the Division, presided. President Sikes of Clemson College made the address of welcome, the response being by David Clark, editor of the Textile Bulletin.

H. H. Iler, president of the Association, outlined the Association's plan for increasing its membership through a general committee in each Division. The committee is to appoint key men in the mills to assist in getting more men on the membership rolls.

After the opening formalities, E. H. Gilliam, of Charlotte, a representative of the Esterline-Angus Company, described the use of graphic recording watt meter for determining power consumption in textile mills. He stressed the fact the instruments are of great practical value in giving a detailed and accurate graphic record of power consumption, that they are simple in operation and afford the mechanics a convenient and simple method of making tests of power used in all departments of the mills.

Mr. Edmiston then asked David Clark to lead that portion of the discussion covering the practical results that may be expected from test work in the mills that is carried out under the supervision of the master mechanics and engineers.

Mr. Clark: We know today that any mill that is not kept up-to-date and that is not able to produce economically is going to be in the discard. I think there is no doubt we have lost more money on the engineering end of our mills, by loss of power, loss of steam, waste of coal, etc., than at any other point. So we thought it valuable to bring up today the question of reducing power con-

sumption and steam consumption. For instance, taking up the point brought up by Mr. Gilliam, of power consumption on spinning frames, what can be done? Suppose a master mechanic decided that, as a test for the Arkwrights, he would go in and make a test on every power spinning frame in his mill, record the difference in power consumption, and then study and find out what caused some frames to consume more power than others. Our idea was that possibly through the assistance of the engineering professors in the colleges they could send a senior student there to make the actual records with the recording instruments, the test to be made under the direction of the master mechanic. That is just one suggestion for a test that might be made. Another is that we might take a spinning frame and make a record of its power consumption, and then put that frame in a different condition—overhaul the spindles, for instance, and see what difference that would make in the power. I should like to hear what you men think we can do in the cotton mills along such lines. Another test might go into the matter of steam consumption.

What we are after here is to find out whether or not it is practicable for the master mechanics to do research work for the purpose of showing unnecessary consumption of power and steam, and if we can get the co-operation of the men in the colleges.

Mr. Iler: Most of the goods that come to a finishing plant require to be singed as the first step in the process. The tensile strength of goods is very important and is constantly being discussed, certainly in our field, and, of course, it is naturally of interest to the mills themselves. For a long time I have wondered whether anybody knew just how singeing temperatures affect the tensile strength of the goods singed. I have asked the singeing machinery builders, and they do not know; I have asked the fuel people, have asked the people who manufacture the goods, and others; but they seem to know very little about it. The thing I hope to do is to establish the relation between singeing temperatures and the tensile strength of the fabrics singed. Discussing that with Professor Willis this morning, we did not know whether it is practicable to determine that in our plant, or whether the college can do it. We may not have the proper instruments and machines, but we are going to discuss it again to try to determine whether or not those facts can be established.

Mr. Clark spoke of spinning frames. I know they overhaul spinning frames; I don't know how often they do it, or how often it is necessary to do it. It seems to me that a spinning frame can continue to make defective yarn for a considerable period of time before anybody

wakes up to the fact that that machine ought to be overhauled. I thought this might develop further; that each mill might find it desirable to employ one person whose business it is to make periodical tests of machines to determine what their productivity should be.

Take spinning frames, again. Suppose the man in charge of the spinning frames in a cotton mill had a periodic record of his spinning frames; he could much more intelligently decide how often the spinning frames need to be overhauled, and when. The same principle can be applied to other machines. Take the calenders, for instance, in our plant. We get a requisition to overhaul the calenders. It is quite possible that the calenders might have been allowed to get to the point where they are actually damaging the fabrics, whereas if we had had regular inspections and records we could have avoided the faults and eliminated hundreds of dollars in claims.

Mr. Clark: I shall call on Professor Earl to tell us something about the difference between recording instruments and non-recording.

TYPES OF INSTRUMENTS

Professor Earl, Clemson College: If there is any periodic variation you may not get it with the ordinary instrument, but you will get it with the recording instrument. Of course, you can tell the instantaneous voltage, as I say, with the indicating instrument; but there might be an interference or change in the load at some period when you are not there to see it. The recording instrument will make a record of that variation, and I think it is preferable.

Mr. Clark: How many master mechanics here have made power tests on spinning frames or other machines—have made a test, made some change, and tested again? Two. What machine did you handle the test on?

L. W. Misenheimer, Master Mechanic, Southern Bleachery and Piedmont Print Works, Taylors, S. C.: Calenders, printing machines, tenter frames. I was testing more for sets and loads than anything else.

Mr. Clark: You have not tested for power?

Mr. Misenheimer: Yes, sir. We test our power machines twice a month.

Mr. Clark: Do you compare the results with the previous power consumption?

Mr. Misenheimer: Yes, sir.

Mr. Clark: What have you been able to accomplish in power saving as the result of your tests?

Mr. Misenheimer: That largely depends on whether we can get the operators to operate in accordance with our notions, or not.

Mr. Clark: What test did you make, Mr. Tindall?

POWER TESTS ON SPINNING FRAMES

Fred Tindall, Master Mechanic, Inman Mills, Inman, S. C.: Spinning frames.

Mr. Clark: What test was made?

Mr. Tindall: We tested them, went over them, cleaned them up, oiled them.

Mr. Clark: Did you test the whole room?

Mr. Tindall: No, just individual machines. We have single-frame drive, two-frame drive, and four-frame drive. You have to test those together. You can lessen power consumption if you keep after it; if you just test and forget about it you can't.

Mr. Clark: Do you think real results could be obtained by going through the entire spinning room and testing each frame?

Mr. Tindall: I know they would—go to each frame and test each frame individually.

Mr. Clark: Will you describe what you would do if you were going to make a test of that kind?

Mr. Tindall: That is a question you can not answer right off.

Mr. Clark: We are trying to work out whether or not it is practicable.

Mr. Tindall: You could not test each individual machine unless you have individual drive. If you have four-frame drive you have to test those all at once.

Mr. Clark: If you went over those tomorrow morning and tested each one of those, what variation would you find, from the highest to the lowest, in power consumption? Twenty-five per cent?

Mr. Tindall: More than that.

Mr. Clark: Some of them could be consuming 25 per cent more power than the others?

Mr. Iler: Mr. Clark, if I might put in a word, my idea would be this. If I had a room with a hundred spinning frames in it, I think I would first get an individual test of each of those hundred spinning frames and put the proper data on the chart to enable me later to identify it. I would first go over the whole thing as it is and file away those charts. The next time I went over it I would take that second set of charts and make a comparison between the first set and the second set and try to analyze, from the difference between them, anything that needed my attention, then investigate that.

Mr. Clark: If the power consumption were 25 per cent more on one than on another, what about that?

Mr. Iler: I should investigate that immediately.

TEST ON FOUR-FRAME DRIVE

Mr. Tindall: We ran a test on four-frame drive for five days and filed the record away. When we told the spinner the result of that test. He overhauled—worked his whole frame over, then made another test. I can not give you the exact records. We made the tests in the same way. There was a real saving.

Mr. Clark: Under the Arkwright system, if a man does a piece of research work that is worth while he gets a medal from the Arkwrights: Suppose there should be assigned to you the determination of variation of power consumption among spinning frames, and some young man from Clemson College came up there and made the records under your supervision. Do you think it would be worth while to your company in the saving of power?

Mr. Tindall: I know it would. To some mills, of course, it would be worth more than to others.

Mr. Clark: What do you think of this proposition, Professor Vaughan?

L. L. Vaughan, Professor of Mechanical Engineering, N. C. State College, Raleigh, N. C.: Mr. Clark, I feel that there is a wide field for investigation and, no doubt, a possibility for a great deal of saving. It has been evident to me, in the few tests I made made of mills, that there are irregularities which go on of which the master mechanic or superintendent has knowledge but that they did not know the exact amount of waste that is taking place, and the only way to get definite data on things of that kind is to go in there with enough apparatus to find out. Of course, in my work I am not so familiar with the actual operations in the textile industry, but I am somewhat familiar with the power generation and power distribution and the economical use of power, beginning at the coal pile and going through; and I think we have a field for investigation, going out of the spinning rooms and weave rooms and going back to the steam plant.

Mr. Clark: Will you give us an example, in the steam plant, of where there is waste of power?

FACTORS IN SAVING POWER

Mr. Vaughan: You have given me a big bill. To go back to the coal; a great many purchasing agents buy

coal by weight, without any idea of the amount of ash or the amount of moisture or the amount of volatile matter there, in the first place. In the second place, the superintendents or the master mechanics do not know whether they are getting good combustion (efficient combustion) or poor combustion of the type of coal they happen to have. To give you a specific example, in the case of a good many mills driven by steam power, if that steam unit was put in some years ago, you will find invariably that the combustion space between the grate bars and the boiler is very small. That will be indicated by blackness of the smoke at the top of your shaft. Now, blackness of smoke does not indicate so much loss as it indicates poor combustion taking place. That is where you get a great deal of loss because poor combustion is taking place. If you lose it there you do not get it into your boiler or into your steam and naturally don't get it over into your spinning room. There is one place where there is a great deal of loss, not only theoretical but practical. I have been in institutions like cotton mills where we have spent money to raise the boiler above the grate two or three feet and have remedied that condition. That is one place where loss occurs.

Another thing; a great many mills are not very careful in reusing or reclaiming a lot of hot water from the heating system. And time you put hot water back into the system and raise its temperature you are saving fuel. That being the case, we should be on the alert to heat our feed water with waste gases, as we call them, either exhaust steam or the flue gas itself.

I have also been in mills where they were using high-pressure steam for the heating during the heating season and running it at high pressure, anywhere from 10 to 40 pounds. The reason for this high pressure was that they had not checked the lines to see that there was proper drainage by gravity. Instead of using, perhaps, live steam for heating, we have made suggestions whereby they can take steam from a prime mover, even at pressures slightly above the atmosphere, and heat the mill out of that which is ordinarily wasted. I think there is a big field there.

I think we can go through from the coal pile right on up. So far as the individual spinning frame or loom is concerned, I am not as familiar with actual performance. But I think there is a wide field there where the college can connect with the mill through our embryo engineers and help them and be of some help to the mill itself.

Chas. A. Spencer, Power Plant Engineer, Union Bleachery, Greenville, S. C.: There are few places in our plants where our power consumption can not be improved upon, from the coal pile to the finishing room. Most of our textile plants now, of course, are operating on a power from a distant point, on purchased electrical energy. But talking about the coal pile, that is the heart of our plant. Some of our steam power plants use anywhere from a car of coal to four cars of coal a week, each car containing about fifty to fifty-five tons of coal. The executive head of the company goes out on the open market and buys the fuel for three, four, or a half-dozen colored men to use—or abuse. This coal is purchased without considering the operating condition of the plant, and is turned over to a bunch of ignorant men and is wasted. Think of it; \$200 to \$210 for a car of coal, \$800 to \$1,000 a week for fuel, turned over to a half-dozen ignorant men to burn up and waste. I think it is a better plan for our executive heads to buy a few cars of coal on the B. T. U. basis and see what is best for our needs. We have the different grades of coal, run of mine, slack, etc., etc. I think it is wise for the heads of plants to purchase coal on the B. T. U. basis.

INDICATING METERS

Professor Vaughan: Lack of smoke does not always show that you have proper firing conditions. You may have holes in the fire. I have in mind a particular plant where they burn about 75 or 80 cars of coal a year. Our base freight rate is \$3.06 to that particular plant, and the price of the coal for the last two or three years has varied. They have bought it at anywhere from 5 cents a ton to 75 cents a ton at the mine. About two or three years ago we persuaded the powers that be to put in some indicating and recording meters that would give some indications as to combustion conditions. We were able to pay for the whole outfit within one year without increasing the outlay for coal and were able to increase the efficiency throughout the whole plant. We have in that plant negro firemen, who are ignorant, but they have eyesight, and they can watch the hands on the indicator and try to keep them together.

DEMAND FACTOR IN POWER BILLS

W. J. Ligon, Master Mechanic, Anderson Cotton Mills, Anderson, S. C.: We have never finished the subject of recording wattmeters. I should like to ask for my own information if there are any men here whose mills are operating under the demand factor, or paying power bills with a certain demand factor. You know there is a demand bracket and an energy bracket, and that demand factor, you know, has a great deal to do with the bill you pay. What effect, if any, would the intelligent use of a recording wattmeter have on the reduction of that energy bracket in your power bill?

Mr. Gilliam: That would be determined very largely by the power company's rate schedule. In some sections, where you have a straight demand charge, you can do some very interesting things by reducing that demand factor, by leveling out your load, with certain industries. In the textile mill there is not a great deal of difference in the amount of power you take over the entire period of the day, and the demand charge of the day creeps up on you when you get high peaks and do not use that heat or can not use that peak throughout the entire month. That is a question for study by the individual mill. I have sold instruments for study of that in mills where they could do certain things to level out that load even better than it was already leveled by the natural cotton mill processes. They found that by cutting off certain equipment, or leveling certain equipment, they could effect certain savings, so that they paid for their instruments in a short period of time. That is not so practicable in this particular section of the country here, on account of the power rates, or the arrangement of those rates. But you can work out some saving.

COAL DETERMINES BOILER EFFICIENCY

Professor Earl: Returning for a minute to the subject of saving in coal, even with the present boiler in any plant, without changing that boiler, the kind of coal that is bought will determine the efficiency, very largely. Even on the B. T. U. basis, one coal may be very volatile and another not so volatile. If you just buy coal on that basis, it may be on a base that will suit your plant, or it may not suit it. You can't buy coal to suit your particular needs, whether it is small combustion space or what. The draft can usually be changed to some extent. It does depend to some extent on the amount of air. If you let in too much air the chimney will choke.

Mr. Clark: We want to hear from some of the master mechanics themselves. Which one of you master mechanics can tell us something you have done at some time that has made a saving in your plant?

BIG SAVING IN RIGHT COAL

W. H. Leathers, Master Mechanic, Newberry Cotton Mills, Newberry, S. C.: We have been getting about 74.4 per cent more efficiency. I did not make that test myself; my test was not quite that high. We went at it with the idea that in buying coal we were buying heat units and went at it with the idea of getting as many of those heat units into the water as possible and, when we were finished with it, getting it back into the system. We are running on two boilers now. We put in stokers, and run on two boilers. We try to keep our CO₂ around twelve. We try to regulate the draft; we have draft gauges on the boilers and try to regulate those by hand. The way I do that is to stay with those firemen for a day, myself, once a month. I set something for them to shoot at and then see that they shoot at it as close as they can. I try to get all our hot water back to the boiler without losing more of it than we can possibly help. I think we are now getting more out of the coal than we are entitled to.

We all have trouble, I think, with somebody else buying our coal. It ought to be bought by someone who knows the use of coal; the buying ought to be left to the operating engineer of the plant, who knows the different kinds of coal and what he can get out of them. I think that would be a real saving to the plant.

We have some purchased power, too. It happens maybe three times a year that our power bill goes away up above the other months. We have no way of determining just what causes that. I have heard that that is the experience in other mills, too. It happens two or three times a year in our plant. If any of these gentlemen have had any experience with that and have found a way to level that out, I should like to hear how they did it.

UNIT HEATERS

Mr. Clark: I know one mill using water power where they recently told me they made considerable saving recently by installing unit heaters, so as not to have to keep the boilers running.

Mr. Iler: We have installed some unit heaters. I can not give you the saving in dollars and cents, but I think Mr. Spencer will bear me out in saying it does not take that to say that the unit system is much more efficient than the old coil system of heating. Just a few minutes' observation in the room will do that.

Mr. Spencer: Unit heaters effect a considerable savings over the old type of heater coils, which many plants still have in use. A few years ago we had in our plant H. R. T. boilers, which are horizontal-return boilers. Will anyone here that has those tell me just exactly the distance the boiler shell is sitting from your grate?

Mr. B.: 42 inches.

Mr. C.: 40 inches.

Mr. Spencer: What is the diameter of the boiler?

Mr. B.: 72 inches.

Mr. C.: 72 inches. Dropped down to 70½ inches, I believe.

Mr. Spencer: I will tell you what I did in my plant. The setting was 36 inches from the grate to the shell of the boiler. I took up with several engineering concerns and also with the International Engineering Company of Framingham, Mass., the matter of raising those boilers, but it would have put the company to a great deal of expense. I saw from the blueprints that we could go down. There was an 84-inch boiler. In place of raising the boiler we lowered the furnace just as far down as we could. We lowered the furnaces 18 inches, which, added to the 36 inches we had, gave me a 54-inch distance between the grates and the shell of the boiler. There was

a big saving in fuel, just in that change. If any of you gentlemen have the old type boilers, H. R. T., it will pay you to see if you can not lower your grates down as far as you possibly can, to 6 feet, 7 feet, or possibly 8 feet away, depending on the diameter of the boiler. It will effect a great saving.

DETERMINING FUEL CHARACTERISTICS

Mr. Iler: I should like to ask a question. What would be the most practical way of determining just what the fuel characteristic should be for your particular plant?

Professor Earl: By test; that would be one of the ways; by actual test of various kinds of coal, testing for a certain period of time, taking measurements. You might take measurements of the carbon dioxide, which is a very simple test, and see whether that is high or not. The carbon-dioxide test does not give you altogether complete information about the burning, but it will be of a great deal of help. It ought to be up around 12 or more. You will find in a great many plants it will run about 6 or 8.

I should say probably one of the ways would be for the engineer to study the plant first, see about this combustion space, etc. That would give him an idea of what kind of coal can be burned. Then test out some coals and see from what he gets the best results. We have at the college, from time to time, tested coals; we ran it a week, perhaps, made readings, and determined the result on the basis of the price of coal, the freight rates, etc., etc. It is not always a money question; sometimes the cheapest coal is not the cheapest to burn.

COLLEGES AID PLANTS

Mr. Clark: To what extent does the college co-operate with the manufacturers in showing them how to save fuel, etc.?

Professor Vaughan: Whenever possible, we arrange to give them a day's time of a teacher; we arrange to carry the teacher's load for a day's time, so that we can send him out and let him make first-hand observation. In a great many cases the teachers are able to recommend some simple remedies which will bring about some worth-while results. Where a long period of time is required for observation we can not do that. Many times we are able to make some suggestions just from inquiries which we get. We always reply to letters from master mechanics and very often are able to make some suggestions that will help them. I feel that it is part of our duty to the people of the State, who are helping to support the college.

Mr. Clark: Suppose a mill writes in that the master mechanic is not getting proper results in some phase of his work, can you send out a man to see about that?

Professor Vaughan: Yes, sir. Whenever possible, the college sends out a man (I have been out myself) to the mill to investigate the matter. That is done without expense to the mill except the actual traveling expense of the man from the college to the mill and back.

Mr. Clark: I wish to call on Mr. Fox to say what he thinks about this matter.

John W. Fox, Engineer, Duke Power Company, Charlotte, N. C.: In regard to this matter of testing, it makes no difference whether you make your own power or not, the savings are represented in kilowatt hours. That is what you manufacture, or what you buy in power. Any instrument, from the CO recorder in the boiler room to the graphic recording watt meter, that will help you to show the savings that can be made, should be applied. My observation of the average mechanic is that he has so much work to do that he can not make these observa-

tions; neither is he equipped mentally to make them. One way in which it can be done, however, and done economically and speedily, is that every machine should have a test block on it. Then my the aid of some such machine as Mr. Gilliam showed you, mounted on a truck so that it can be run around the mill, you can plug in that machine on each frame and go through the entire mill in a week. A test block brought out to the individual machine enables a man to plug in the test block and make a record of the power used by that machine.

POWER RECORDS

That will make a record of the power used. I think if after a test any change is made and there is recorded a saving of 25 per cent in power, there must have been something wrong with that machine to begin with. Now, human nature is the same all the world over. The spinner is interested primarily in production; he wants to turn out the maximum production that the weaver can use. The weaver is interested in the number of picks he can turn out. No one is primarily interested in this power problem except the master mechanic, and I question whether the average master mechanic has the time to do those things. But if he is going to do them, he should be afforded the most convenient way to do them; and a test block on each machine would expedite matters so that he could make the test in a quick way and in a thorough manner.

Now, the reading of a chart is not always so simple as it looks. I am inclined to think that a spinning frame

real reason why a man should go after his maximum demand. That represents the total of kilowatts put into the mill. On Monday mornings you start up a cold mill. I have made tests that show that as the temperature of the oil increases the power demand goes down. There is a point where the temperature of the oil in the bolsters crosses the power line, and from that point it is pretty constant. The result is that you find your lowest demand is after about four hours' running. You decrease the power input into your frames after about four hours' running; meanwhile, your demand is up.

That is a big question, how you can reduce your power input, whether you make it or buy it. The best way to do that is by having frequent tests on machines. I think Newberry has made several tests on that line, and they have found some rather remarkable things there. They have found that it is best to use certain oils. All spinning frames are not alike, and with some frames it is better to use some particular kind of oil, due to its particular type of construction. You can not change the frame. Is a master mechanic has the time to make tests on spinning frames he can fill in a place that is very much needed at this time and he can make some reductions in costs.

After all, the thing that we are trying to get at in savings is dollars and cents, so the question of the height of a boiler and the question of the coal are altogether a question of how many dollars the mill pays for the power that it uses. So if we save any power at all it means frequent testing. A man has to be on the job all the time and has to know the oils, know the condition of the bolsters, know the setting of the clutches on the looms. I was in a mill recently where the power consumption was high, due simply to the fact that the friction clutches on the looms were not set properly. All those things have to be taken into consideration, and the student that can be taken into the mill and shown those things is going to be benefited. The master mechanic who is keeping his mind on savings is going to be benefited. During the last few months we have had probably more inquiries about this one matter of savings than ever before, due to the fact that under our system or rates we give a bonus to the mill that keeps its maximum demand down. The meters that are in the mills now that are served by the Duke Power Company have a figure that shows how high this maximum demand goes from day to day. You are watching those things, and properly so. You are therefore trying to see how to keep your fire pump off the line, how to keep your steam compressor off the line, while the mill is running.

A TEST ON LOOMS

L. M. Kincaid, Master Mechanic, National Weaving Company, Lowell, N. C.: We were questioning the load on some particular machines. We had a graphic watt hour recording instrument on them but could not tell right to the watt, so we changed to a precision outfit. I checked a number of looms with that for three different days, having told the loom fixer not to touch the loom but just to keep it running if he could. We changed three looms from solid rod to airplane-type tubing. The weight is three ounces, I believe. The load dropped down 92 watts on some looms and 104 on others— $\frac{3}{4}$ H.P. motors, 46-inch looms. That is about the same saving as this gentleman showed on his spinning machine, although on an entirely different type of machinery.

Mr. Tindall: I did not mean you can reduce your power consumption 25 per cent over the whole mill. We did not do that, but we did find one or two spinning

(Continued on Page 12)



H. H. ILER



E. E. EDMISTON

that consumes a certain number of kilowatt hours over a certain period is, after all, the best test. After all, the kilowatt hours, or the actual power consumed—the power that you generate or the power that you buy—is what you are paying for, so that a graphic recording chart that would show up the total number of kilowatt hours, in connection with an integrating wattmeter, would be the best indication of power consumption in the plant.

DEMAND AND ENERGY

One question, I am afraid, is being slighted, and that is the question of demand and energy. Many companies, of course, use the maximum demand and energy charges. The energy charge, of course, is the amount of power consumed by the machine. The indicated demand is what he pays for. The maximum demand is part of the total charge. For instance, if you go into a store and buy a suit of clothes, you pay for the cloth so much, for the buttons so much, etc., but the sum total is the suit of clothes you pay for. If a man can take his demand and cut that by any reason or any method, he cuts his rate, because that is part of the rate in the Duke Power Company's system. If he cuts his energy, he cuts the discount that is given him on that rate. So there is a

BEHIND THE SCENES WITH A KNITGOODS STYLIST

LAST MINUTE NOTES ON KNITTING FASHIONS

by *H*ARWOOD

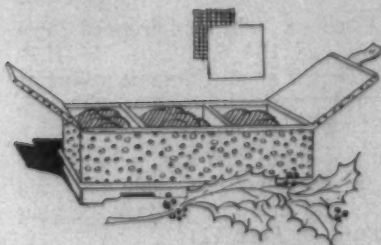
We—speaking editorially—have to take our hat off to the people who are setting out to sell better stockings. Take, for example, that very progressive New York house, Lord and Taylor—have a look at an ad of theirs which appeared recently in the newspapers—sounds as though it meant business, doesn't it?—and as a matter of fact it did.

Propper McCallum also are making a strong drive in the trade papers to capture the attention of the shops who should or do sell high grade stockings. There is undoubtedly a movement towards greater elegance in women's clothes, and that means stockings too—so look to your higher priced numbers—see that they are *right* in style and colors.

Speaking of Colors

Speaking of colors—the New Castle Leather Company are already out with a forecast for spring, although they admit that the forecast is for spring in the shops, which has little to do with spring on the calendar, beginning as it does in midwinter and continuing until the first warm day.

For the early season they would emphasize black and dark brown though they recommend these dark shoes be lightened by trimming details—which suggests lighter stock-



WOMEN ARE GETTING MORE PARTICULAR ABOUT THEIR STOCKINGS

Maybe it's the much heralded return to elegance, maybe it's simply that women have got tired of stockings that were unattractive of their clothes. Here at Lord & Taylor, where fine stockings have never ceased to be a tradition, we note that more and more women are appreciating the importance of beautiful stockings and asking for "better" qualities for the convenience of these hosiery, we are listing some of the more famous ladies stockings in such a way that you can check your needs against your present wardrobe.

EVENING CLOTHES *Lord & Taylor* SUGGESTS

For formal parties—ladies who desire... 1.00 pr. 3 pr. 3.00

For dinner... 1.00 pr. 3 pr. 3.00

For late evening... 1.00 pr. 3 pr. 3.00

Other evening stockings, 1.00 to 1.50 pr.

WITH AFTERNOON CLOTHES *Lord & Taylor* SUGGESTS

For very dressy parties—“Continental”... 1.00 pr. 3 pr. 3.00

For dressy parties... 1.00 pr. 3 pr. 3.00

For late afternoon parties... 1.00 pr. 3 pr. 3.00

Other afternoon stockings, 1.00 to 1.50 pr.

WITH DAYTIME CLOTHES *Lord & Taylor* SUGGESTS

For business... 1.00 pr. 3 pr. 3.00

For all-around wear... 1.00 pr. 3 pr. 3.00

For shopping... 1.00 pr. 3 pr. 3.00

For late afternoon... 1.00 pr. 3 pr. 3.00

Other daytime stockings, 1.00 to 1.50 pr.

SPORTS AND TRAVEL *Lord & Taylor* SUGGESTS

For sports, travel and work... 1.00 pr. 3 pr. 3.00

For all-around wear... 1.00 pr. 3 pr. 3.00

For shopping... 1.00 pr. 3 pr. 3.00

For late afternoon... 1.00 pr. 3 pr. 3.00

Other sports and travel stockings, 1.00 to 1.50 pr.

STREET FLOOR — Wisconsin 7-3300

ings. Navy blue, they say, usually comes a little earlier and they prophesy that navy shoes will again be as successful as they have been for the past few years. Gray shoes in medium tones they expect to begin selling for early spring to go with coats trimmed with gray fur—and later to complete gray costumes. They call attention to the fact that the recent Paris openings gave a prominent place to true gray as distinguished from taupe or eel gray, but they expect the latter shades to continue in fashion as well. Gray-beiges they

claim also have a place in the early spring picture.



Gift Hosiery

Perennially, attractive ideas for gift hosiery come to the fore. Here is the latest! The No Mend Hosiery people are offering a smart jewel box in appealing colorings with compartments for three pairs of stockings. When the hosiery has been removed the box will do good service as a receptacle for odds and ends on the dressing table, and serve as a reminder of the thoughtfulness of the giver.

Apropos of gift hosiery—many older women, though they may appreciate quality, do not care for cobweb sheer stockings and for them the Propper - McCallum Hosiery Company feature a nine thread pure silk ingrain stocking in four attractive shades, Peter Pan, Golden Beige, Putty Beige and Gunmetal.

Normal Leg—Large Foot

This same house have also recently launched stockings for what they call, the “Forgotten Lady”—the woman whose feet call for 11 to 12 size stockings, but whose leg is of normal size. They claim that shoe manufacturers throughout the country report an increasing call for larger and larger shoes. Up to now the best the hosiery department had to offer the woman with a large foot was outside hosiery, often too big in the leg. To answer the requirements of this type of woman Propper-McCallum offer two elastic top numbers, one chiffon, one semi-service, in a complete range of colors, with foot sizes up to 12 and normal sized legs.

A COLD EMULSIFIER

- Emulsifies vegetable and mineral oils.
- Requires no soap or alkalis.
- Forms emulsions even in hard water.



**General Dyestuff
Corporation**

230 Fifth Avenue, New York, N. Y.

**EMULSIFY with
EMULPHOR A
OIL SOLUBLE**



PERSONAL NEWS

L. L. Reeves has been promoted from section hand in picking to second hand in carding at the Peerless Cotton Mills, Thomaston, Ga.

R. F. Newton is no longer connected with the South-eastern Machine Company, of Greensboro, N. C., and has returned to his former position with the Ideal Machine Company, Bessemer City, N. C.

Henry D. Blake, Jr., for many years Southern salesman for the Torrington Company, knitting machine needle manufacturers, has opened an office for his company in the United Bank Building, in Greensboro, N. C. He will be assisted in covering the territory by Fred L. Rowe, from Torrington.

Robert Luther Huffines, Jr., who is president of the Faytex Mill of Fayetteville, and Miss Eleanor Mackubin-Lilly, were married recently at Christ's Episcopal church, Raleigh, N. C.

After a wedding trip to New York and Canada, Mr. and Mrs. Huffines will be at home in Fayetteville.

J. F. Matheson, recently appointed manager of the Mooresville Cotton Mills, Mooresville, N. C., is a graduate of the Textile School of North Carolina State College. Two other graduates of the Textile School, M. M. Roberts, designer, and C. W. Gunter, foreman of finishing, are also connected with this mill.

L. C. Coggins, superintendent of the Edna Mills Corporation, Reidsville, N. C., entertained his overseers, second hands, section men and loom fixers at a fish fry near Reidsville last Saturday evening. Short talks were made by Superintendent Coggins, E. B. Brannon, overseer of spinning, R. V. Alexander, overseer weaving, W. A. Marrs, assistant overseer and Tom Sparks, I. F. Thacker and S. L. Apple, all loom fixers.

George R. Urquhart, president of the Manville Jenckes Corporation of Providence and Manville, R. I., spent a few days in Gastonia as the guest of John A. Baugh, Jr., vice president and resident manager of the Lora and High Shoals units of the same corporation. He is looking over the two Gaston County units of his corporation and expressed himself as pleased with conditions of the two units, as he found them since his arrival, and predicted improved conditions in the near future.

R. L. Lee, Jr., graduate of the Clemson Textile School in 1925, who for the past few years has been Assistant Professor of Carding and Spinning in the Clemson Textile School, has been awarded a senior fellowship by the Textile Foundation. Mr. Lee will report to Lowell Textile School on November 1st to conduct such research in textiles as may be directed by the Foundation. Mr. Lee's classwork will be handled by G. Gago and other members of the Clemson Textile School faculty.

Expects Decline in Business Activity To Be Checked Before Year-End

While activity in general business and the textile industry continued downward in October, touching new lows from the June-July highs, present conditions are not out of line with predictions made during recent months, the Textile Organon, published by the Tubize Chatillon Corporation, points out in its current issue. Despite present

conditions, the publication states that "it would appear that the current decline may be arrested during the current month or some time in December, preparatory to a more gradual rise in the spring of 1934."

Commenting upon the condition of retail trade the paper states that the present lull in sales volume may be traced to the pre-code and inflation rush of the summer months, which resulted in increased inventories and higher retail prices. In this connection it adds that "with these higher stocks, less favorable dollar sales, a probable decline in the physical volume of goods retailed, and the consumer reaction to higher retail prices, it is difficult to see how any great buying wave by retailers to stock up on their goods, or to sell them, is in the offing. This precludes the possibility of some government edict scaring people to death again in the matter of inflation, as well as the continued active selling of certain reasonably-priced and fast-moving staple items."

Commenting upon conditions in the cotton market, it is stated that the decline in consumption "from the June high is clearly a normal recession from the unduly large consumption of that pre-code month. The usual seasonal influences have not been operative during the past six months. Further this decline in consumption is fully in line with the decreases which have taken place in other lines of business."

Referring to the silk market, the paper states that "it is believed that silk prices will be relatively the weakest of those of any of the textile fibers during the next few months. This is true principally because of the weak hands in which raw silk is held. This silk must be moved and unless the silk promotion campaign gets under way soon, which is doubtful, it is probable that silk will be sold on a pure price basis."

As to rayon the paper states that "toward the end of October the forward demand for rayon showed evidence of slowness and it is expected that this situation will continue on to the end of the year. That this trend is purely seasonal can be seen by an examination of the seasonal indices. Further this interline before the first of the year will give the producers an opportunity to fill in and balance their stocks of yarn."

OBITUARY

T. H. TURNER

Mayodan, N. C.—Thomas H. Turner, 64, treasurer of Mayo Mills, which are owned by the Washington Mills Company, and Fries Manufacturing Company, died Wednesday afternoon following a heart attack which he suffered while at work in the mill offices at Mayodan recently. Mr. Turner was a native of Linden, Ala., but for the past thirty-eight years had been connected with the Mayo Mills.

Cotton Crop Estimate 13,100,000 Bales

The government crop report, as of November 8th, was issued at the moment of going to press. Details could not be presented in this issue.

The report estimated the cotton crop for the year at 13,100,000 bales. This compares with an estimate of 12,885,000 bales shown in the October report, an increase of 215,000 bales.

The indicated yield per acre was placed at 208.7 pounds, as compared with 205.3 per acre in the October report.

The ginning report showed that 10,361,000 bales had been ginned to November 1st.

Comer Answers Statement by Wallace

DONALD COMER, president of the Avondale Mills, has taken issue with the recent statement of Secretary of Agriculture Wallace in which the latter contended that the speed up in mill operation prior to the effective date of the NRA and the processing taxes was for the purpose of "beating the gun."

Mr. Comer cites reasons to show that the mills had actual orders to justify their increased production and that the large amount of goods produced went to fill a legitimate demand.

Mr. Comer's statement was contained in a letter to George A. Sloan, president of the Cotton-Textile Institute, and said:

"I can't speak for the entire industry, but I can speak for the Avondale Mills, and a large group of others which I do know were similarly situated. As a result of the publicity attaching to the debate on the Black 30-hour bill and as a result of the publicity attaching to the debate on the national recovery act, distributors of cotton goods became impressed with the fact that both these bills carried with them the possibility of higher prices, and as a result, beginning in March, there was a gradual increasing demand for cotton goods.

"The mills themselves, which had been on short time operations for several years and who had been selling their goods without profit for several years, began accepting and continued to accept a large volume of this business as the then prevailing low prices and depended upon protective clauses on their sales contract against any increased costs that might later develop through the operation of a 30-hour bill or any other governmental enactment.

WERE DISTURBED.

"This increased activity in the textile business was tremendously disturbing to the cotton mills, and they themselves, speaking through their own industry's committee, were hurrying the enactment of the textile code all that they possibly could. They thought that their customers were buying goods in volume beyond their normal requirements, and they themselves were anxious to have the production curtailing features of the code become effective at the earliest possible date.

"The speed-up in production of cotton mills previous to the approval of the textile code was primarily for the purpose of delivering goods to our customers which were owing to them, and in almost every case on low priced contracts. Our customers were urging deliveries on these contracts primarily, we thought, to get ahead of NRA costs. They were not so concerned about the processing tax which became effective August 1 because under the law itself, it was understood that this was to be passed along. If the speed-up in production previous to the enactment of our code and previous to the enactment of the processing tax was for the purpose of beating the processing tax, it was not the mill which was beating the tax, it was in order that the distributor, and his customer, the consumer, might get ahead of the tax. You will recall that the Department of Agriculture encouraged this opportunity so far as the consumer was concerned, because they allowed the retailers 30 days extra in which to distribute goods before they were required to make their inventory for the purpose of paying floor tax. The distributors of cotton goods urged in their advertisements that their customers buy ahead of the tax.

FOR THE CONSUMERS GAIN.

"Undoubtedly, the speed-up of production gave some

mills some production which permitted them to sell some spot goods at the higher prices prevailing immediately before July 17 and August 1, but I insist that this speed-up production came because of the urge from the distributors and consumers of cotton goods and was in no way for the purpose of building up mill inventories to be sold later. As a matter of fact, the figures prove that inventories of cotton goods in mill hands on those dates were the lowest that they have been for a long time—in our own case, the lowest in years.

"Our concern was how we were going to be able to continue delivering goods on our old cheap contracts that had to be made after July 17 with NRA costs added. Naturally, that is why we were tremendously concerned with that provision in our code approved by President Roosevelt which says "that appropriate adjustment of such contract to reflect such increased cost be arrived at," and let me say again that although cotton spinners had millions of pounds of cheap goods to deliver, they were glad to urge the earliest effective date possible for their code, because they were afraid of the ultimate effect on the market of this speed-up production. With the code becoming effective on July 17, and with an operating schedule of 40 hours a week for employees and 80 hours a week for machinery, we felt that, if the imposition of a processing tax could have been delayed or put on progressively, production in industry might have continued without any slackening.

"We felt the increase in the price of cotton from 6 cents to 10 cents and the added costs of NRA on July 17 were enough for the industry to be burdened with at one time, but a processing tax was added on August 1 and it was natural for the spinner to feel that it was this last burden, call it the last straw if you wish, that slowed down operations.

"I think that it is in order to state right here also that the failure of the Department of Agriculture to put on compensating taxes on competing fibers concurrently with the processing tax on cotton has also had a hurtful effect at this crucial time.

"I also think the fact that the added NRA costs is killing our export markets, principally the Philippines and the West Indies, is another very important factor, and when we recall that there are over 35,000 people operating over 1 million spindles, producing over 500 million yards of cloth for the export trade, you can get a fair idea of what this loss will mean.

"COOPERATIVE."

"The textile industry has no other desire in the world than to cooperate with every department in Washington to insure the success of NRA and AAA. The record proves this. Any suggestion or any recommendation that we have made has been unselfish, not for any purpose of delay or obstruction, but has been for the purpose of helping every interest of cotton.

"As processors of an American farm product for use largely by American consumers, our one concern is to perform well our part. We want to see the farmer get the highest price for his cotton; we want to see the people who work in our mills work the shortest hours and at the highest wages that the traffic will bear, but the responsibility rests with us to find the buyer, and it is what the public is willing to pay that in the last analysis will be the measuring rod."

Master Mechanics Study Methods Of Preventing Power Losses

(Continued from Page 7)

frames that were requiring 25 per cent more power than the others.

AFTERNOON SESSION—12

gfHfl

Prior to adjournment for lunch the Clemson College Cadet Corps put on a special parade for the Division.

Prof. T. S. Johnson, of N. C. State College, spoke when the afternoon session opened. He stressed the value of research work and urged that the master mechanics take advantage of the co-operation offered them by the technical colleges.

The discussion was then resumed.

Mr. Clark: If the master mechanics go into making technical tests, either by themselves, or with the assistance of students from these colleges, what kind of tests can be made? Has anyone a suggestion to make of some one or two pieces of perhaps comparatively unimportant research work that can be done by master mechanics?

CLEANING BOLSTERS SAVES POWER

Mr. Leathers: I want to tell you about a test we made a short time ago. The spinner cleaned the bolsters on a few of his frames and tested the motors. We saved about three per cent by cleaning his bolsters, we found. That is not a great deal, but three per cent here and five per cent there, you know, will amount to something.

Mr. Clark: What about different oils? Did you make tests with different oils?

Mr. Clark: How much did it vary?

Mr. Leathers: 9 watts on a spinning frame—reduced it that much. The best oil we had was 9 watts less than with the oil we had been using.

Mr. Fox: 9 watts in 5,000 watts—that would be a saving on 5,000 watts of 9 watts?

Mr. Leathers: Yes, sir.

Mr. Clark: It seems to me that with the recording watt meter there is a chance to go in and determine a lot of things that the mill ought to know.

Is there any other suggestion in regard to the steam plant or the power?

PROPER COAL SAVES POWER

Mr. Misenheimer: Last April a year ago we decided that we were using the wrong kind of coal in our plant, and we got five different coal firms to come there and run tests. We decided to change our fuel and by doing that saved quite an item in the efficiency of the coal; even though we paid fifteen cents or more per ton at the mine than we had been paying we found it more economical. I think, if I remember correctly, it was $8\frac{1}{4}$ per cent we saved by changing fuel. We have two types of boilers in our print works; we have a water-tubing in the bleachery and have H. R. T. return tubing. We found that the coal we used in one of the plants was not suitable for the other and selected a different coal for each plant. We had a good engineer come there, and he made a test of thirty days in each plant.

Something was said this morning about the return of hot water to your boilers. I should like to say here that that is one of the most essential things that you can do around a steam plant; if you have any waste hot water, return that to the steam plant. Regardless of what it is going to cost you, it will pay you to get it there. I brought the temperature in one of my plants from 212 to 220 degrees and saved \$2,810 in one year. I saved in one year \$10,090, by actual yardage count. That water was going to waste, for what reason I do not know. The

designers of the plant did not make any provision for condensation from the plant, and the waste water was going down into the sewers. We bought pumps and, all told, I reckon, spent around \$4,000 for pumps, piping, etc. That was the return we got.

As to making tests, it is always a question of being able to spend the money. The meter for steam flow on boilers is one of the best things I have ever seen in the boiler room. If you have a meter on your boilers you can tell what each boiler is doing. A boiler is like a transformer; one will steal from the other. We have found it worth while to put them on.

Mr. Spencer: Did I understand you to say that the grade of fuel you purchased for one plant was not suitable for the other?

Mr. Misenheimer: Yes, sir.

Mr. Spencer: Will you tell us why?

Mr. Misenheimer: On account of the type of boiler and type of stoker. We had an underfeed stoker at one plant and an overfeed stoker at the other.

COMMITTEE ON TEST WORK

Mr. Fox: I move that the chairman appoint a committee of three to report to our next meeting a description of apparatus for testing in the average mill; such apparatus to be simple, economical, and yet sufficient for the needs. When I say "testing" I mean in all phases, electrical and steam. This motion was seconded and carried.

Chairman Edmiston: We have some questions for discussion now. Mr. Kincaid has a question he wants to ask.

Mr. Kincaid: How many of you have made changes to stop no-load transformer loss? Of course, as you know, this loss runs into money. This loss runs, as you know, from one to two kilowatts per 100 K. V. A. machine. Personally, I did not pay any attention to that no-load transformer loss a few years ago; but since the NRA plan has been in effect we have been thinking about it a little. Now that we are operating our plants only 80 hours a week, out of a possible total of 168 hours, this loss will run into money. Another thing I got to investigating and found that the Duke Power Company years ago had moved their meters around a little. I find that in our little plant the no-load transformer loss there would be ten dollars a week. That is only a little money, but it is no trouble in the world for the watchman, as he goes by, to throw over the switch. In the big mills the loss would run into money for you; it is estimated that our mills have a no-load transformer loss of several thousand dollars. I hope someone can tell me something about this.

Mr. Fox: You are at Lowell?

Mr. Kincaid: Yes, sir; National Weaving Company.

Mr. Fox: What loss are you talking about there, if it is not a 550-volt loss?

Mr. Kincaid: 220.

Mr. Fox: The Power Company, then, would have to deliver to you 220 volts, to pay the losses? And then you would have to step up to 550 volts, wouldn't you?

Mr. Kincaid: No, sir; our meters are 220—all individual drives.

Mr. Fox: But you have two voltages?

Mr. Kincaid: Yes, sir.

Mr. Fox: The Power Company delivers to you 550-volt service. The Power Company takes that loss. The motor voltage, the losses on those transformers, are taken in every case by the Power Company. Where you have a lighting system for your village, etc., the mill takes that loss.

(Continued on Page 18)



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Member of

Audit Bureau of Circulations and Associated Business Papers, Inc.
Published Every Thursday By

CLARK PUBLISHING COMPANY

Offices: 118 West Fourth Street, Charlotte, N. C.

DAVID CLARK	Managing Editor
D. H. HILL, JR.	Associate Editor
JUNIUS M. SMITH	Business Manager

SUBSCRIPTION

One year, payable in advance	\$2.00
Other Countries in Postal Union	4.00
Single Copies	.10

Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

Master Mechanics Plan Research

The desire of the Master Mechanics to aid Southern cotton mills in reducing power costs is highly commendable.

The recent meeting of the Master Mechanics Division of the Southern Textile Association, held at Clemson College, devoted its entire session to discussing methods of demonstrating the savings which could be made, by many mills, in the consumption of coal and power.

It was stated that, with a recording instrument, the power consumed by each spinning frame can be determined and that such records will disclose the fact that some frames use far more power than others.

One mill had, by experimenting, found that changing the distance between the grate bars and the boiler effected a saving of more than 10 per cent in the amount of coal consumed.

These are only two illustrations of the things which were discussed at the Clemson College meeting but they indicate that the Master Mechanics are alive to the saving which can be effected through study and research.

When a master mechanic goes to the treasurer with a request for a change in equipment, the almost invariable question is, "What will it cost?" Seldom does the treasurer ask, "What will it save?"

The second question asked by the treasurer is, "Can you get along without the change?"

The Master Mechanic can, of course, get along without making the change even though the old system wastes coal or power and thereby dollars.

Not enough attention has been paid to the suggestions of master mechanics and it is to their credit that they are still striving for efficiency and economy.

Price of Overalls Becomes Symbol Of Farmer's Discontent

A report from the West states that the price of a pair of overalls standard everyday apparel of the man who works in the fields, has been singled out for repeated protest at farm gatherings. It has come to typify, in the agricultural mind, the higher retail prices which many farm leaders contend press most severely upon rural residents.

Inquiry at Kansas City retail establishments disclosed that overalls costing a farmer 59 to 69 cents a pair early this year now sell for 89 to 98 cents. Overalls of better material and workmanship, which formerly sold for 98 cents, now bring \$1.39.

Considering the fact that the price of cotton has advanced from 6 to 10 cents and that a 4.2 processing tax has been added and also that the new wage scale and shorter hours have greatly increased the cost of production, we do not see that there has been any abnormal or unjustified increase in the price of overalls.

A Significant Statement

B. E. Geer, president of Furman University and a member of the National Industrial Relations Board, made a statement relative to the recent strike in the Horse Creek Valley near Augusta and from that statement we quote the following:

We were not able, though, to ascertain definitely just what caused the strikes, as many of the workers themselves did not seem to know.

It is a safe bet that the collection of dues from union members had fallen off and that a strike was necessary in order to stir up enthusiasm and increase collections.

Many of the operatives went to the Governor of South Carolina with the statement that they had no desire to strike and asked for protection when entering the mills.

The operatives, including union members, lost several weeks wages but it is reasonably certain that the union organizers received their regular pay.

Ancient Textiles

As we weave our fabrics some of us seem to think that we are doing something new but from the graves of early rulers in Egypt have come the remains of fabrics of fine textile and exceedingly intricate and beautiful designs.

Within the last few weeks a woolen mitten lost about 100 B. C. and a woolen cloak lost cen-

turies before that have been found in peat bogs in Southern Sweden.

At the Historical Museum in Sweden experts determined the ages of the garments by examining pollen grains left in the yarn. The plants which yielded the pollen are known to have grown in Sweden in definite periods. The mitten dates from shortly before the Christian era, but the cloak, much older, dates from the Bronze Age.

Both garments were made of coarse, double-spun, brownish wool yarn, mixed with animal hair probably from cattle.

Litvinov Arrives

Commissar Maxim Litvinov has arrived in the United States and as the result of a well organized campaign of propaganda we will at an early date recognize Russia.

As Will Rogers said in a recent broadcast we would recognize the Devil if we thought we could get a good order for pitch forks.

Russia can only buy on credit and recognition will not establish their credit.

Less than six months ago Dictator Stalin said:

The Communist Internationale has created possibilities for the Communist party in the United States to reach the stage where it is able to prepare the masses for the coming revolution.

We are now going to recognize Russia because somebody has put out the story that Russia will buy our goods, but refrained from explaining what effect recognition would have upon their ability to pay.

Letter to Jersey Journal

Editor, Jersey Journal,

Jersey City, N. J.

In a recent editorial entitled "Ex-child Laborers," I note the following statement:

"Miss Carty declares that about 20,000,000 American school children will be released from industry and adds that New Jersey, an industrial State, has its full quota."

I cannot understand why anyone should make such a wild and extravagant statement when they must know that it can be so easily disproved.

None of the NRA codes prohibit the employment of those 16 years of age and above, and the 1930 Census Report on "Children—Gainful Occupations," shows only 667,118 under 16 years of age gainfully employed, including those who work upon farms, as newsboys, and in domestic service.

With only 667,118 under 16 years of age gainfully employed, Mrs. Carty is to subtract from same about 20,000,000.

There has been a general belief that hundreds of thousands of little children 10, 11 and 12 years of age have been regularly employed in cotton mills, but it has been a myth. The 1930 Census showed only 236 children under 14 years of age employed in all the cotton mills in the United States and they were illegally employed because all cotton manufacturing States have for many years prohibited the employment in factories of persons under 14 years of age.

The 1930 Census lists those under 16 years of age, gainfully employed, as follows:

In Agriculture	469,497
In Forestry and Fishing	1,562
In Extraction of Minerals	1,184
In Manufacturing and Mechanical Industries	68,266
In Transportation and Communication	8,717
In Trade	49,615
In Public Service	485
In Professional Service	4,844
In Domestic and Personal Service	46,145
In Clerical Occupations	16,803

It will be found rather difficult to refute the unprejudiced testimony of the Census Bureau and the above shows that a very small per cent of those, under 16 years of age, listed as "gainfully employed" are affected by NRA codes.

Those in agriculture and in domestic service, two of the largest groups, certainly do not come under any code.

By propaganda the public has been led to believe that cotton mills employed thousands of little children but the Census Bureau could only find 236 under 14 years of age employed in all the cotton mills in the United States.

DAVID CLARK.

Limit of Academic Freedom

To be informed of all political theories is a part of education, but our youth should be protected from the influence of teachers who take advantage of their position to propagandize surreptitiously, or, as many of them do, openly, against the institutions and doctrines of our country and in behalf of theories destructive of the American system. Academic freedom does not go to the extent of justifying the exposure of youth to the influence of teachers who seek to undermine loyalty and impose their own opinions in the guise of instruction.

Socialist and even communist theories and experiments seem to have gained a strong hold upon our so-called intelligentsia.—*Exchange*.

Weave Room Proof

Careful check will show you that liquid oils simply will not stay in bearings, but constantly drip and spatter onto warps and woven goods. Change to NON-FLUID OIL—made to stay in bearings.

70% of the leading mills know NON-FLUID OIL saves them money because it keeps warps and cloth free from oil. In addition, it saves more money by outlasting liquid oil 3 to 5 times, reducing cost of lubricant and application.

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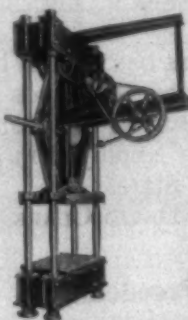
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MILL NEWS ITEMS

THOMASTON, GA.—The Peerless Cotton Mills have installed the Hygrolit system of yarn conditioning.

ANNISTON, ALA.—The work of installing 29 Model X new Draper looms and six new spinning frames in the Anniston Manufacturing Company has been completed.

DALTON, GA.—Mill Associates, Inc., has been appointed selling agents for the Blue Ridge Spread Company, manufacturer of candlewick bedspreads.

ASHEVILLE, N. C.—New boiler and stoker equipment is being installed in the Asheville Cotton Mills at a cost of approximately \$7,000. This equipment was purchased from the Combustion Engineering Corporation.

MERIDIAN, MISS.—The former D. & W. Hosiery Mills, Inc., is now operating under a new name, the Maywebb Hosiery Mills, Inc. The company has secured a charter and is operating with increased capital stock.

GREENVILLE, S. C.—It is estimated that the payrolls in cotton mills in Greenville and vicinity have been increased by \$5,250,000 per year since the operations were begun under the textile code.

THOMSON, GA.—The Mary-Deila Manufacturing Company is to be incorporated here by C. L. Upchurch and associates, who have taken over the former Lullwater Manufacturing Company, as reported some weeks ago. The new company is named for Mr. Upchurch's daughter. The plant is equipped to manufacture warp or hosiery yarns. W. L. Phillips, formerly of Social Circle, Ga., is superintendent.

CHARLOTTE, N. C.—With Charles L. Okey, George E. Wilson, Jr., and George I. Sibley as the incorporators, a charter of incorporation has been granted by Secretary of State Stacey W. Wade, at Raleigh, to the Okey Hosiery Company of Charlotte. This new industry takes over the interests of the Rock Hill Hosiery Company, with units at Charlotte and at Rock Hill, S. C., and also provides for Mr. Wilson's entry into the firm.

LUMBERTON, N. C.—Under the NRA, payrolls of the textile mills of Lumberton, St. Pauls, N. C., Red Springs, N. C., and Bladenboro, N. C., have been increased more than \$22,000 a week, or at the rate of more than \$1,100,000 annually. All of the outside mills are within twenty miles of Lumberton and all are within Robeson County except Bladenboro. Five hundred and ninety additional operatives have been put on the payrolls of the mills under the NRA code.

GASTONIA, N. C.—This week the Parkdale Mill began operating with two shifts of workers on a new schedule of hours, with the first shift starting work at 7 o'clock and stopping at 3 o'clock and the hours for the second shift are from 3 p. m. until 11 p. m. These hours will continue through the winter months.

The Clara Mill, starting on its third week of curtailment, was expected to resume operation this week.

The Hanover Mills, 1, 2 and 3, which have been idle for the past two weeks, were expected to start up this week.

MILL NEWS ITEMS

BURLINGTON, N. C.—The report that the Burlington Mills Company would remove its main offices to Greensboro has been denied by the mill management. It is understood that the report was based on the fact that J. Spencer Love, president of the company, recently engaged private offices in the Jefferson Standard Building in Greensboro. The general offices are to be continued here, Mr. Love says.

DURHAM, N. C.—A. H. Carr, president, announced this week that a dividend of 50 cents a share on the 6 per cent cumulative preferred stock of the Durham Hosiery Mills has been voted by the board of directors. Mr. Carr said this dividend will be paid November 20th to stockholders as of record November 10th, and will be applied on the accumulated and unpaid dividends of preferred stock outstanding. The dividend just declared brings the total declared this year on the 6 per cent cumulative preferred to \$1. A similar 50 cents dividend was voted in February. There are 33,738 shares of the preferred stock outstanding, and the total dividend amounts to more than \$16,000.

ALBEMARLE, N. C.—Answer to the complaint recently filed by W. C. Eford and other heirs of the estate of the late J. S. Eford, against Charles A. Cannon, R. L. Smith and Wachovia Bank & Trust Co., was postponed until December 1st when a motion by defense attorneys was granted.

Several allegations as to the conduct of the estate's affairs were made in the complaint. The petition, after alleging in effect that the estate was suffering from the trusteeship of the defendants, chiefly Charles A. Cannon, asked for an accounting against the trustee's, requiring them to charge themselves with an account for the amounts allegedly diverted from the revenues of the estate by the activities of Mr. Cannon.

MACON, GA.—At the annual meeting of the stockholders of the Bibb Manufacturing Company the following directors were elected:

Samuel B. Adams, of Savannah, Ga.; W. D. Anderson and W. D. Anderson, Jr., both of this city; W. C. Bradley, of Columbus, Ga.; R. Curtis Jordan, of Columbus; Miss B. Lane, of Savannah; W. E. Muir, of England; B. P. O'Neal, of Macon; James H. Porter, of Macon; E. W. Stetson, of New York City; R. J. Taylor, of Macon, and D. A. Turner, of Columbus.

Following the meeting of the stockholders, the directors held their meeting and re-elected the following officers:

W. D. Anderson, president and chairman of the board of directors; James H. Porter, executive vice-president; W. D. Anderson, Jr., vice-president; A. A. Drake, Jr., secretary and treasurer, and Charles E. Hertwig, assistant secretary and treasurer.

GAFFNEY, S. C.—Until the purchase of the Irene Mills complies in full with the terms of the sale made this week, the receiver, Major Henry C. Moore, is authorized to remain in charge and operate the plants if the necessary funds are provided by the purchaser, Frank M. Bennet, of New York. Major Moore stated this week the operation of the plants depends upon the receipt of orders. D. W. Hicks, former vice-president of the mills and general manager under the receiver, was to leave this week for New York to discuss plans for the plant with Mr. Bennet.

PRINTERS— 2 New PRINTING GUMS!

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(application)

● **SILTEX
GUM D**

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Onyx laboratory research triumphs again! These new gums mark a tremendous advance over any heretofore available. They excel on every point that makes the perfect printing gum. Try them in your plant.

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B. & O. BUSES STOP AT DOOR

Compliance with the purchase terms will terminate the ownership of the prominent wheat family. The Irene Mills were established by the late H. D. Wheat a quarter of a century or more ago and for years proved highly successful. The court order directs the receiver to execute and deliver a proper deed of conveyance to Frank M. Bennet of all the property specifically set out in the purchase agreement upon compliance with his contract by Mr. Bennet.

Master Mechanics Study Methods Of Preventing Power Losses

(Continued from Page 12)

Mr. Kincaid: I did not mean to criticise, but I have been told that when the mill can disconnect these lower voltages the mill can save—that the mills of the South could save tens of thousands of dollars a year.

STEAM TURBINES FOR SLASHERS

Mr. Iler: Has anybody ever investigated the possibilities, where there are a number of slashers in a plant, of driving those slashers with a small steam turbine and using the exhaust from the turbine for the steam the slasher requires?

Mr. Fox: The matter of slashing is occupying considerable attention just now as to the type of boiler put on the market today, which would be an individual boiler for each slasher. Of course, it is electrically heated. The difficulty I am up against is how many pounds of steam per hour each slasher takes. What is the peak demand when we put it into the cooker? What is the peak, and what is the average number of pounds of steam throughout the day?

Mr. Iler: I know there are certain kinds of steam consumption tests made on slashers, but I don't know how dependable they are.

Mr. Kincaid: At our particular plant we tried it one time. We used to use potato starch, boiled it. We ran one 120 and one 180.

Mr. Iler: If somebody would undertake a test of that particular thing and could establish a standard from tests made on different machines on different yarns, that would be an excellent guide for somebody who came after and wanted to do those things.

Mr. Kincaid: How many of you use the AC variable-speed motors, and do you get anywhere near the rated flexibility with them? In other words, can you get the variations in speed that are claimed for this type?

Mr. Iler: I have quite a number of variable-speed motors, brushing type, commonly known as E-C-As (3-C-As). I have never checked them and don't know whether there is a positive three-to-one production, but all the motors we have bought have been of that type, in the three-to-one ratio. They have given us the speed range desired, and I think it is a wonderful piece of apparatus and fills a long-felt want, certainly in our type of work.

Mr. Kincaid: Don't you have to buy bigger motors?

Mr. Iler: In deciding the size of motors we have considered the maximum load and bought the motor to fit the maximum load. I think it is well known that the faster you drive a machine, the more power it takes to drive it. We have had no difficulty.

Mr. Spencer: There are just a few points I want to bring up. The first is cleanliness in our power plants. I do not mean just cleanliness of the walls and ceiling and floor but of the heating surfaces, of the boiler and tubes. I think our power plants should be well kept up. If they are kept clean, both internally and externally, we shall get good results, and every pound of fuel we put into the furnace will account for itself. Otherwise you will have an abundance of waste; the fuel that we put into our

plants, instead of heating the place that should be heated, is heating the atmosphere.

WATER TREATMENT

How many master mechanics are treating their water for boiler-feed purposes?

Mr. Misenheimer: We use soda ash in our clear walls, after it passes through the filter. Since we have adopted the use of secondary soda ash after the filters we find it better than anything else we have tried. I find it has worked wonderfully in my boilers. Every bit of scale that was in them has come out. Of course, I have been fighting that scale ever since I have been there. We had none, of course, in the print works, but had some in the bleachery, and I tried to get rid of it. My boilers now, after using that secondary soda ash, are one hundred per cent better than they were a year ago.

Question: Do you ever examine your boilers for pH M?

Mr. Misenheimer: Every day, and get a report on it.

Mr. Spencer: The water at our plant is treated for process work and also for feed water. Just a few months ago our boilers and tubes were in bad condition; there were little tubercles on the inside of the tubes. I made an inspection last Sunday morning and rubbed my finger over the top of the tubes, and it was just as slick as glass. They are in the best condition they have been in in five years. So if you are not treating your water, I think it would pay you to do it.

Mr. Kincaid: Where is the danger point in the pH of our water?

Mr. Misenheimer: It depends on local conditions and water conditions. There is such a variation in waters and water treatments. Every individual plant has to have its pH set according to the condition of its water and the condition of the plant, to suit its needs best.

Mr. Iler: Here is another thing about hydrogen-ion concentration. I have been doing a lot of work in our plant lately. The Union Bleachery's water lines have considerable age on them, and consequently the corrosion inside the pipes is considerable. We know that from making piping changes. They can make a pH test after the secondary treatment, and it is one thing. Then they can go down to the plant and take a sample from one of the lines down there and make a pH test, and it is another thing. The character of that water has changed by reason of its contact with that corrosion for perhaps a couple of hundred feet. I believe the chemists at our plant try to hold the hydrogen-ion concentration of the finished water at around 7.2.

SELECTING COAL

Mr. Spencer: I believe it is necessary that we should study the conditions of our plant before we select one special grade of coal. At our plant, several years ago, we tested out nine different grades of coal, testing out from one to twelve cars each from different mines. Two of those grades ran pretty close together, but one was a little better than the other, and that was the one we selected.

Now, in burning run-of-mine coal, you know there are lumps of coal perhaps nine to twelve inches in diameter. If you throw that lump in the furnace it will not burn. It has to be prepared, by a selge hammer or something else. So I think proper selection of coal is very important.

Is it necessary to keep a daily record of our power plants? Is it necessary to have a daily inspection of our power plants and to keep a daily record? Say our plants are using so many thousand pounds of water a day, making so many thousand pounds of steam, we have no record of it. I think those records should be kept in all power plants.

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Tatum Talks To Textile Students

C. S. Tatum, Manager of Pilot Mills, Raleigh, N. C., addressed the semi-monthly meeting of the Tompkins Textile Society at North Carolina State College last week.

Mr. Tatum spoke of the "New Deal" and its relation to the textile industry. He discussed the effect of the NRA, the cotton processing tax, and other recovery efforts upon the manufacturing and marketing of textile products.

Having just returned from an ex-

tended trip to Northern markets, Mr. Tatum described the trends which he had observed and stated that the President's radio address seemed to give the buyers more confidence in the ultimate success of the "New Deal."

Cotton Processing Code Hearing Set November 15

Washington—Public hearings on a code for the textile processing industry, to begin here November 15, are announced by the NRA, to provide

Do You Know

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Odorless Disinfectant

When used in the floor rinsing water will protect your employees from FLU, common COLDS and other germ diseases?

It will as well as deodorize all foul places without substituting another odor.

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Prompt Deliveries
PHILADELPHIA
BELTING COMPANY

HIGH POINT, N. C.
E. J. Payne, Manager

an average work week of 40 hours with a minimum wage of 32½ cents, or \$13 for a 40-hour week, for cotton and rayon processing and 35 cents an hour, or \$14 for a 40-hour week, for all other processing.

The charter also would provide a 2½ cents an hour differential in the south. Employment of persons under 16 is banned.

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Because of its entirely new "floating" action, the Circle-D reduces friction, stays cool, wears longer and produces yarn of the finest quality. See for yourself! We'll send samples FREE.

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J. McD. McLeod 20 Church St., Bishopville, S. C.

COTTON GOODS

New York.—There was little interest in cotton goods last week and buying continued light. The most encouraging feature was the firm price stand noted by the majority of mills. Finished goods have sold better recently than has generally been believed and it is expected that a better demand for gray goods will soon develop. The trade generally believes that the Administration is going to put prices up and a little more activity in general business is expected to be felt quickly in the cotton goods markets.

In print cloths, while the volume of new business was small, prices were kept on a very steady basis. The majority of the mills are well sold. A great many of them are booked through the end of the year and others through January and into February. For this reason mills were generally able to maintain the price advances that were made during the previous week. Sales from second hands were not large enough to affect the market. The same conditions noted on print cloths apply to mills on carded broadcloths.

The demand for sheetings has been very light and prices showed signs of weakness. Some of the sheeting mills are on short time and it appears that there is little chance for any large accumulation of stocks.

Fine goods markets suffered some price recessions on standard numbers during the week and it was growing increasingly apparent that relatively minor stock accumulations were exerting a depressing influence on a number of staple constructions. The weakness of these numbers discouraged some buyers who had just begun quiet accumulation of some goods in the hope that they could carry them as a sort of hedge against the shortage they fear may be repeated in the spring. With the price structure showing several soft spots, such buyers were inclined to wait for a more definitely established low point, since carrying goods involved some expense.

Print cloths, 28-in., 64x60s	45½
Print cloths, 27-in., 64x60s	4½
Gray goods, 38½-in., 64x60s	65½
Gray goods, 39-in., 80x80s	9
Gray goods, 39-in., 68x72s	75½
Brown sheetings, 3-yard	9¼
Brown sheetings, 4-yard, 56x60s	8¼
Brown sheetings, standard	9½
Tickings, 8-ounce	20
Denims	15½
Dress gingham	15½
Standard prints	7¾
Staple gingham	9

J. P. STEVENS & CO., INC.

Selling Agents

40-46 LEONARD ST., NEW YORK

YARN MARKET

Philadelphia, Pa.—There was no improvement in the yarn market last week. Business continued very slow and prices showed further signs of weakness. In many instances, considerable variation on the same yarns were noted. The market has been confused and hesitant, with buyers feeling no urge to cover more than their minimum requirements. Some spinners have been pressing for business. Many of them are curtailing promptly as orders are filled. An idea of the unfavorable position in which the spinners have been for some time is cited in the statement that prices on 10s carded cones have declined 5 cents a pound since August, while cotton is now $\frac{3}{4}$ cents higher.

A general disposition to await further action until after the publication of the government crop estimate of November 9th was noted throughout the week.

During September and October margins narrowed when the character of the yarn market changed from one favoring the seller to one favoring the buyer, reversing the trend witnessed prior to placing the industry on a code basis when spinning margins expanded to an important degree. The same thing applies proportionately to the combed section, finer counts being sold at 10 cents a pound less than in August.

There were few signs to give spinners an optimistic outlook in trading of the last week, competition among producers for new business becoming keener than at any time since their volume began to diminish and notwithstanding a firmness in cotton prices of all qualities weakened under the strain.

The most promising feature at present is that a number of large operators have been quietly buying large quantities of yarns for delivery months ahead. They feel that conditions are soon to swing more in the sellers' favor and are taking advantage of what they term "bar-gains" now.

Conditions in the combed yarn trade continued very unfavorable and curtailment is increasing.

Southern Single Warps		60s	59
10s	27	Duck Yarns, 3, 4 and 5-Ply	28
12s	27½	8s	29
14s	28	10s	30
16s	28½	12s	31
20s	31	16s	32
26s	34	20s	32
30s	36		
Southern Two-Ply Chain Warps		Carpet Yarns	
8s	28	8s	28
10s	28½	10s	29
12s	29	12s	30
14s	29	16s	31
16s	30	20s	32
20s	32		
24s	34	Carpet Yarns	
26s	35	Tinged carpets, 8s, 3	25
30s	37½	and 4-ply	27½
30s ex.	40	Colored strips, 8s, 3	27½
Southern Single Skeins		and 4-ply	27
8s	27	White carpets, 8s, 3	27
10s	27	and 4-ply	27
12s	27½	Part Waste Insulating Yarns	
14s	28	8s, 1-ply	23
16s	28½	8s, 2, 3 and 4-ply	23
20s	31	10s, 2, 3 and 4-ply	24
26s	34	12s, 2-ply	25½
30s	36	16s, 2-ply	28½
36s	42	20s, 2-ply	30
40s	45	30s, 2-ply	36½
Southern Two-Ply Skeins		36s, 2-ply	42½
8s	27	Southern Frae Cones	
10s	27	8s	26½
12s	27½	10s	27
14s	28	12s	27½
16s	28½	14s	28
20s	31	16s	28½
26s	34	18s	29
30s	36	20s	30
36s	42	22s	30½
40s	45	24s	31½-32
50s	53	26s	33
		28s	34
		30s	35

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Akron Belling Co., Akron, O. Sou. Rep.: L. L. Haskins, Greenville, S. C.; L. F. Moore, Memphis, Tenn.

American Cyanamid & Chemical Corp., 535 Fifth Ave., New York City. Sou. Office and Warehouse: 301 E. 7th St., Charlotte, N. C.; Paul Haddock, Sou. Mgr.

American Enka Corp., 271 Church St., New York City. Sou. Rep.: R. J. Mebane, Asheville, N. C.

Arnold, Hoffman & Co., Inc., Providence, R. I. Sou. Office: Independence Bldg., Charlotte, N. C.; R. E. Buck, Mgr. Sou. Reps.: Harold T. Buck, 511 Pershing Point Apts., Atlanta, Ga.; Frank W. Johnson, P. O. Box 1254, Greensboro, N. C.; R. A. Singleton, 2016 Cockrell Ave., Dallas, Tex.; R. E. Buck, Jr., 216 Tindel Ave., Greenville, S. C.

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Borne, Scrymser Co., 17 Battery Place, New York City. Sou. Reps.: H. L. Slever, P. O. Box 240, Charlotte, N. C.; W. B. Uhler, 608 Palmetto St., Spartanburg, S. C.; R. B. Smith, 104 Clayton St., Macon, Ga.

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Butterworth & Sons Co., H. W., Philadelphia, Pa. Sou. Office: Johnston Bldg., Charlotte, N. C.; J. Hill Zahn, Mgr.

Campbell & Co., John, 75 Hudson St., New York City. Sou. Reps.: M. L. Kirby, P. O. Box 432, West Point, Ga.; Mike A. Stough, P. O. Box 701, Charlotte, N. C.; A. Max Browning, Hillsboro, N. C.

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Charlotte Chemical Laboratories, Inc., Charlotte, N. C. A. Mangum Webb, Sec.-Treas.

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Du Pont de Nemours & Co., E. I., Wilmington, Del. Sou. Office, 302 W. First St., Charlotte, N. C.; John L. Dabbs, Mgr. Sou. Warehouses: 302 W. First St., Charlotte, Buford Bros., Inc. Service Rep.; J. P. Carter, 62 North Main St., Greer, S. C. (Phone 186). Salesmen: E. H. Olney, 101 Gertrude St., Alta Vista Apts., Knoxville, Tenn.; C. F. Shook, Jr., 1031 North 20th St., Birmingham, Ala.; B. C. Nabers, 2519 27th Place South, Birmingham, Ala.

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National Aniline & Chemical Co., Inc., 40 Rector St., New York City. Sou. Office and Warehouse: 201 W. First St., Charlotte, N. C.; Julian T. Chase, Mgr. Sou. Reps.: Dyer S. Moss, A. R. Akerstrom, W. L. Barker, C. E. Blakely, Charlotte Office; James I. White, American Savgs. Bk. Bldg., Atlanta, Ga.; H. A. Rodgers, 910 James Bldg., Chattanooga, Tenn.; J. E. Shuford, Jefferson Std. Life Bldg., Greensboro, N. C.; E. L. Pemberton, 342 Dick St., Fayetteville, N. C.

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National Ring Traveler Co., 257 W. Exchange St., Providence, R. I. Sou. Office and Warehouse: 131 W. First St., Charlotte, N. C. Sou. Agt., C. D. Taylor, Gaffney, S. C. Sou. Reps.: L. E. Taylor, Box 272, Atlanta, Ga.; Otto Pratt, Gaffney, S. C.; H. L. Lanier, Shawmut, Ala.

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Stanley Works, The, New Britain, Conn. Sou. Office and Warehouse: 552 Murphy Ave., S. W., Atlanta, Ga.; H. C. Jones, Mgr.; Sou. Reps.: Horace E. Black, P. O. Box 424, Charlotte, N. C.

Steel Heddle Mfg. Co., 2100 W. Allegheny Ave., Philadelphia, Pa. Sou. Office and Plant: 621 E. McBee Ave., Greenville, S. C.; H. E. Littlejohn, Mgr. Sou. Reps.: W. O. Jones and C. W. Cain, Greenville Office.

Stein, Hall & Co., Inc., 285 Madison Ave., New York City. Sou. Office: Johnston Bldg., Charlotte, N. C.; Ira L. Griffin, Mgr.

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art Fence Construction Co., 341 Liberty St., Spartanburg, S. C.

Terrell Machine Co., Charlotte, N. C., E. A. Terrell, Pres. and Mgr.

Textile-Finishing Machinery Co., The, Providence, R. I. Sou. Office: 909 Johnston Bldg., Charlotte, N. C.; H. G. Mayer, Mgr.

U S Bobbin & Shuttle Co., Manchester, N. H. Sou. Plants: Monticello, Ga. (Jordan Div.); Greenville, S. C.; Johnson City, Tenn. Sou. Reps.: L. K. Jordan, Sales Mgr., Monticello, Ga.

Universal Winding Co., Providence, R. I. Sou. Offices: Charlotte, N. C., Atlanta, Ga.

U. S. Ring Traveler Co., 159 Aborn St., Providence, R. I. Sou. Reps.: William W. Vaughan, P. O. Box 792, Greenville, S. C.; Oliver B. Land, P. O. Box 158, Athens, Ga.

Veeder-Root Co., Inc., Hartford, Conn. Sou. Office: Room 1401 Woodside Bldg., Greenville, S. C.; Edwin Howard, Sou. Sales Mgr.

Victor Ring Traveler Co., Providence, R. I. Sou. Offices and Warehouses: 615 Third National Bank Bldg., Gastonia, N. C.; A. B. Carter, Mgr.; 520 Angier Ave., N. E., Atlanta, Ga.; B. F. Barnes, Mgr. Sou. Reps.: B. F. Barnes, Jr., Atlanta Office; A. D. Carter and N. H. Thomas, Gastonia Office.

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Whitfin Machine Works, Whitinsville, Mass. Sou. Offices: Whitfin Bldg., Charlotte, N. C.; W. H. Forcher and R. I. Dalton, Mgrs.; 1317 Healey Bldg., Atlanta, Ga. Sou. Reps.: M. P. Thomas, Charlotte Office; I. D. Wingo and M. J. Bentley, Atlanta Office.

Whitinsville Spinning Ring Co., Whitinsville, Mass. Sou. Rep.: Webb Durham, 2025 East Fifth St., Charlotte, N. C.

Whitney Mfg. Co., Hartford, Conn. Sou. Rep.: Precision Gear & Machine Co., Charlotte, N. C.

Wolf, Jacques & Co., Passaic, N. J. Sou. Reps.: C. R. Bruning, 1202 W. Market St., Greensboro, N. C.; Walter A. Wood Supply Co., 4517 Rossville Blvd., Chattanooga, Tenn.

Mill Villages to Install Sewerage Systems With Loans From Government

Spartanburg, S. C.—Forty-three textile mill companies of South Carolina are being urged by the State Board of Health to install sewerage systems in their mills, with funds to be obtained from the Federal Public Works Administration.

A number of mill villages in South Carolina have proper sewerage facilities, the State health officials say, but those to whom letters have been sent had not intalled them when last inspected. They included a number of mills in Spartanburg, Aiken and York counties.

The mill evective were informed that the Legislature passed an enabling act to validate revenue bonds issued for such work and the State Supreme Court upheld its constitutionality.

Following is a copy of the letter from the State health officer and sanitary inspector: "With the continued demand for more adequate sanitary conditions in villages of manufacturing concerns, as evidenced by the yearly legislative agitation of this matter, such installations are only a

matter of a few years, and probably will be required when the financing cannot be accomplished as easily as under the above plan.

"The State Board of Health will be glad to advise any corporation as to the procedure under this plan, but advises immediate investigation through its own engineers."

Two Cotton Mills Get Reduction

Greenville, S. C.—Property assessments of two cotton mills in South Carolina have been cut down by \$30,000 by the State board of tax review, but the figure of a third mill was not reduced.

The Anderson Cotton Mills of Anderson, received a reduction of \$20,000 in its assessment of \$220,000, and the Arcade Cotton Mills of Rock Hill had its assessment cut from \$588,000 to \$578,000. All of the mills appealed to the board from figures set by the tax commission. An appeal of the Conestee Cotton Mills of Greenville County from an assessment of \$112,000 was denied.

Thanksgiving Cruise

BERMUDA

Seamship Columbus

of the

Norh German Lloyd

In Co-operation

Southern Railway Excursion

4½ Days Cruise—From Charlotte, N. C.

\$70.75

Rate includes round trip rail ticket from Charlotte, N. C., to New York and return. First class accommodations S. S. Columbus New York to Bermuda and return, and meals while on the steamer. The Columbus is your hotel in Bermuda. Cruise permits two daylight days and one night in Bermuda.

No Passport Necessary.

Rate does not include cost of Pullman or meals on train, nor expenses in New York. Government taxes additional.

Railroad tickets valid November 28th and 29th to New York, bearing final return limit December 7th, 1933.

Columbus sails from New York 11:59 P. M. November 29th, and returns to New York December 4th, 1933, A. M.

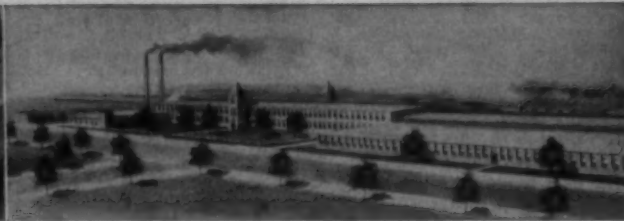
For additional information, reservations and literature, address:

R. H. GRAHAM,

Division Passenger Agent,

Charlotte, N. C.

Southern Railway System



VISITING THE MILLS

Edited by Mrs. Ethel Thomas Dabbs

ALEXANDER CITY, ALA.

AVONDALE MILLS—IN THE FRONT RANKS OF PROGRESS.
A MODERN BEAUTY PARLOR AND TWO MEMORIAL
CHURCHES ARE LATE ADDITIONS HERE.

Every time we visit one of the Avondale mills (the name of all the Comer mills) we are so dumbfounded over what we find that it's hard to know how to tell about it.

THE BEAUTY PARLOR

One of the most amazing things we found here is a beauty parlor with all the latest and best machinery for different kinds of permanent waves and hair dressing. There is not a better equipped beauty parlor anywhere. Mr. J. F. Comer, vice-president and manager, informed me that a beauty parlor had been added to the many attractions at Avondale Mills at Sylacauga. Mill girls



BEVELLE GIRLS BASKETBALL TEAM

Left to Right—Eloise Davis, Velera Bence, Pauline Green, Gladys Sprayberry, Bertha Still, Edith Bence, Ruby Smith, Charles Smith (Coach), Jessie Lou McCollough, Leola McCollough, Ollie Rains, Lola Sprayberry, Retha Champion, Pauline Belgen.

were sent away to take training for this work and are now in charge of these beauty parlors.

This is one thing for which the Comers are noted. They train their own people for various positions. Many young men and young women have been well educated and trained for good positions in the various Avondale Mills and at little or no cost to themselves.

THE CHURCHES

Two beautiful memorial churches are nearing completion and will soon be dedicated. The Methodist Church is in memory of Ex-Governor Comer, father of Messrs. Donald, Fletcher, B. B. and Hugh Comer, who are so ably carrying on the work began by their noble father, a leading Methodist.

The Baptist Church is in memory of G. L. Comer, brother to the Ex-Governor, who was a leading Baptist of the State, and died several weeks ago at a ripe old age, in Eufaula, Ala.



BEVELLE BASKETBALL TEAM

SOUTHERN TEXTILE CHAMPIONS, 1931

Back Row—John Turner, Emmett Keith, Roscoe Slagle, Troy Holly, Kelly Champion.

Front Row—Edwin Price, Luke Peters, Odell Roberts, Walter Boseman, Lewin Smith, Captain. (Chas. Smith is Coach.)

The churches are large and have ample conveniences for Sunday school, with various rooms for classes in the large basement. The only difference in the churches is that the Baptist church has a baptismal font—one of the nicest arranged we have ever seen.

A piano for each church has already been bought and are ready to be placed.

THE SCHOOL

In company with Prof. Peavey and C. C. Smith, athletic director, we attended chapel service, which was in

charge of the Junior High. One of the songs, "Look for the Beautiful," is an index to community life here. There was Scripture reading, prayer, good music and a splendid play.

This school goes through Junior High, and all who will (and they are encouraged to do so) may go the Senior High, in the city, with all expenses paid by the mill company. The school building is large and well furnished and is the only one we've ever seen with a complete sprinkler system for fire protection.

THE KINDERGARTEN

Here we found 65 little tots all anxious to "do their stuff" for visitors—every one clean and sweet, and not a bit self-conscious. The pretty teachers in charge had them well trained and were as proud of them as could be. If we could take a peep at the records in heaven of the good work done for children by the Comers, we would no doubt be speechless with awe, while wondering why others did not do more in this line. From the cradle on through high school, through young manhood and young womanhood, and on to old age, the Comers never fail



Seventy Operatives Off to Camp Helen for a Week's Vacation.

in their duty to their employees. God grant that the employees never fail in appreciation.

A BROADCASTING SYSTEM

In Prof. Peavey's office there is a radio so arranged with loud speakers in each class room that programs can be clearly heard in any or all of them as preferred. Educational programs of much help to the pupils are given. Also there's a broadcasting "mike" that gives much fun as well as information from programs rendered in the office by local talent.

MEDICAL AND DENTAL PARLORS

There's a splendidly equipped doctor's office and small hospital where minor operations are performed. Also a dental parlor, with every convenience. The health of the people is carefully considered. No wonder everybody looks so strong and in such perfect condition.

HOME ECONOMICS

We visited this department a little too late to sample the goods things the girls had just cooked, but we inhaled the delicious "smell." This department is splendidly furnished with electric and oil stoves, white enameled kitchen cabinets, tables and everything needed. Cooking and sewing will be no problems to these girls when they go out to grace homes of their own. Some nice luncheon sets were being made from mill cloth,

which, if placed on the market, would be sure to be well received.

ATHLETIC HALL

I'll never be able to tell it all. I never can, when I visit an Avondale Mill. But here I saw 11 fine trophies, won by the baseball and basketball teams. The basketball team won six out of seven years in tournaments. We have never seen a finer group of athletic girls than is shown in this issue.

PERSONALS

Mr. Smith, athletic director, showed us all the things mentioned. Miss Dora Comer, charming daughter of Mr. Fletcher (vice-president), gave "Aunt Becky" a drive over the village, so attractive with rockwork, brown bungalows trimmed in white, and oodles of lovely flowers. Then to visit her lovely mother, who is no doubt the best loved by more people than any other woman in Alexander City. Camp Helen, the famous summer resort where employees all go for vacation, was named for her.

"Uncle Hamp" and "Aunt Becky" were luncheon guests of Superintendent and Mrs. J. L. Byers in their beautiful home, and truly enjoyed it, though we had to rush back to work.

OVERSEERS AND OTHER PROGRESSIVES

J. F. Guy and W. S. Mitchum, overseers in carding; G. H. Gordon and H. O. McGill, spinners; F. G. Tapley, slasher; C. V. Vickers, weaver; C. C. Scott, cloth room; R. N. Slagle, master mechanic.

These, beside overseers, are keeping up with things pertaining to textiles by reading the Textile Bulletin. Clifford Whitley, E. T. Guy, H. H. Roberson, H. L. Forbus, W. C. Jones, A. G. Smith and W. S. Dennis, live wires in the card room.



Camp Helen, near Panama, Fla., where Avondale Mill Operatives Spend a Week in Summer.

Clyde Whetstone, J. W. Purcell, progressive young men in spinning room; E. E. McCollough, second hand in weaving, has a fine family, and appreciates the educational advantages they have had here. His son, Floyd, is a graduate of Clemson. His daughter, Onnie, won a scholarship in business college and is now taking the course. All his children have made good records. A. D. Pugh is an up-to-date loom fixer; D. H. Bush, foreman of cleaning department; J. C. McGee, fixer, and C. I. Adamson, second hand, in cloth room; J. G. Vickers, second hand in tying-in, and J. A. Holcombe, second hand over Barber-Colman spooling and warping.

Paul Scott, son of the cloth room overseer, a 17-year-old boy, will graduate from Senior High next June—thanks to the generosity of the Comers—says his father.

Walter Keith, a High School boy, is quite an artist, having painted some wonderful pictures.

On and on, we could write of individuals who have made or are making good in the Avondale Mills.

CLASSIFIED ADS.

COTTON MILL

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cate G. P. W., care Southern Textile
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WANTED—Position as overseer weaving; experienced on Jacquard and fancy bobbies; can handle your weave room satisfactorily. T. L. D., care Textile Bulletin.

WANTED—Whitin or Saco-Lowell type willow with automatic feed and motor. Must be reasonably priced and in good working condition. State full particulars and lowest price in reply. "Willow," care Textile Bulletin.

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Cotton Consumption Near Record Figure

World consumption of all growths of cotton for the first two months of this season, ended September 30, is estimated by the New York Cotton Exchange Service at 4,274,000 bales. This compares with 3,778,000 bales consumed in the like period a year ago and is only 1 per cent less than the high record for those two months, in 1927, when the world consumed 4,303,000 bales.

With world production of cotton this season estimated at 24,755,000 bales, and with consumption in August and September pointing to an annual rate of 25,644,000 bales, a reduction in the world stocks of cotton this season is indicated says the Service.

The normal or average annual consumption of cotton in years immediately preceding the world trade depression was about 25,000,000 bales. Accordingly, world consumption is running at present above the pre-depression normal. This high rate of cotton spinning is attributed to the low price of the staple and to the improvement in world trade, particularly in the United States. The low point of world cotton consumption was reached three years ago, in the first year of the depression. The revival of cotton spinning has been stimulated by the fact that the bulk of cotton goes into consumers' goods of relatively short life and hence requiring frequent replacement.

There are indications of a larger relative use of foreign cottons and a smaller relative use of the American staple, but the trend in these directions was not pronounced in the August-September period. American cotton constituted 57.4 per cent of the all-cotton total in the two months this year, compared with 59.2 last year. The percentage for American cotton this year is above those in three years prior to last year.

Ordered To Give Up Blue Eagle

Washington—The National Compliance Board of the national recovery administration has ordered the Morro Manufacturing Company, of New Orleans, maker of house dresses, to immediately surrender its blue eagle.

This step was taken following a complaint of the New Orleans Compliance Board that the Morro company had violated both the maximum hours and minimum wage provisions of the President's reemployment agreement.

Sink or Swim

Bodies dropped into water either sink or float. As a rule there is no middle ground.

In the past, some mill managers have been able to make their works survive with old equipment and inferior materials. But conditions are quite different today.

Under the Textile Code, with its shorter work week and higher wages, obsolete plants will soon be sunk in the sea of excessive operating costs. It will be only a question of time.

Southern mill owners realize this fact, as evidenced by the impressive increase in orders and inquiries reported by Southern representatives of textile mill machinery and supply manufacturers.

There was never a more opportune time to place all of the facts regarding the time and cost-saving advantages of your products before the officials and operating executives of Southern mills.

The medium to use is the journal that is really READ. Surveys conducted by advertisers and agencies, as well as the testimony of Southern representatives, prove conclusively that this live, newsy, WEEKLY journal is the most widely and thoroughly READ medium in the Textile South.

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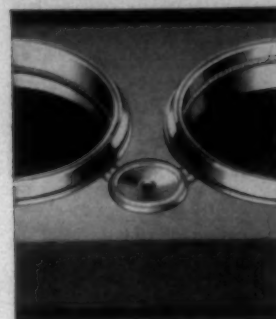
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